TWO NEW SPECIES OF METAPONE FROM MADAGASCAR

(HYMENOPTERA: FORMICIDAE)

ROBERT E. GREGG, *Department of Biology, University of Colorado*

The two species herewith described belong to an interesting and bizarre genus of ants comprising a distinct tribe, the *Metaponini*, of the subfamily Myrmicinae. Up to 1953 (Smith), 13 species of *Metapone* had been described, and though these ants have a wide distribution in the Oriental and Australian Regions, they seem to be sporadic in occurrence and very rare. It is with considerable significance then that the group should turn up on the Island of Madagascar, and not surprising that it should be represented there by completely new species. A list of the known forms, with the localities from which they were first collected, appears at the end of this paper. The specimens upon which this report is based were obtained from Dr. Alfred E. Emerson, in whose collection of termites they were residing. The ants are said to be associated at times with termites in rotting wood, and presumably the individuals in this sample were collected in such a situation. It is a pleasure to acknowledge my indebtedness to Dr. Emerson as the source of this material.

Metapone madagascarica sp. nov.

Worker.—Length, 6.91 mm.; head length (excluding mandibles), 1.50 mm.; head width, 1.08 mm.; head index, 0.72; thorax length, 1.83 mm.

Head, even without the mandibles, distinctly longer than broad (about 1 and ⅓ times longer than broad), widest in the occipital region and tapering concavely to the mandibular insertions where it is narrowest; occipital margin broadly and shallowly excavated, and concave. Head decidedly convex antero-posteriorly as well as transversely; gula convex; median cephalic groove very weakly indicated, becoming obsolete on the clypeus where it is replaced by a low, rounded carina, posterad. Frontal area absent, its position taken by a broad, curved epistomal suture which delimits the posterior border of the clypeus, and extends between the widely separated frontal carinae. The carinae are straight, parallel, and prominent where they cross the clypeus as trenchant ridges to its anterior margin, abruptly divergent and almost transverse at the antennal insertions, and again turning sharply backward through right angles, and continuing posteriorly to the region of the vertex, flaring slightly. The surfaces of the head below the carinae are broadly concave, forming shallow but distinct antennal scrobes, bounded and overhung by the carinae, though open ventrally. Median lobe of clypeus nearly quadrate, weakly and concavely truncate anterior to its small carina, and bidentate, that is, armed with two, small, blunt teeth projecting forward, and separated by a distance equal to the base of either. Lateral clypeal lobes narrow, sinuate, convex, and separated from the genae by faint lines continous with the median portion of the epistomal suture. Ocelli absent; no ocellar pits. Compound eyes reduced to mere vestiges composed of 6 to 8 very minute and indistinct ommatidia; located on the sides of the head, at a point barely

past the center as measured from the mandibles to the occiput, and on the edge of the scrobe. Mandibles stout, convex, anterior margins feebly curved to nearly straight, the masticatory border bearing five, heavy, blunt teeth, the apical ones best developed and the others diminishing slightly in size. Antennae 11-segmented; scapes short, flat, about 2½ times as long as wide, with convex anterior and straight posterior margins; scapes almost fill the upper and deeper portions of the cephalic scrobes where they are overarched by the facial carinae. Funiculi longer than the scapes, decidedly flattened, but with the upper surface weakly convex and the lower surface flat to almost imperceptibly concave; funicular segments 2 to 7 much broader than long and gradually increasing in size; last three segments much larger, forming a spatulate club, the penultimate and antepenultimate members of which are nearly as broad as long, the terminal segment longer than broad and twice the length of the penultimate.

Thorax long and narrow, about 2½ times as long as broad, and narrower than the head; humeri well-developed, pro- and mesonotum fused with no trace of dorsal sutures; meso-epinotal suture distinct and slightly impressed, especially laterad. Entire thorax including epinotum, marginate to submarginate laterally, the bordering ridge continuing transversely across the front of the pronotum, setting off a distinct collar which joins the head at a low level. The margins continue also to the epinotal angles which then terminate in broad, dentate processes at the same level as the thorax, and finally turn ventrally to border the declivious face of the epinotum. Dorsum of the thorax moderately convex from side to side, feebly from anterior to posterior ends; basal face of epinotum nearly horizontal, but passing through an abrupt, slightly concave angle to the vertical declivity; basal face twice as long as the declivious face. Thoracic pleurae and epinotal sides vertical but noticeably concave. Petiole almost flat dorsally, subquadrate except that the postero-lateral corners are divergent and produced into prominent teeth; the posterior border is broadly excised. The dorsum is separated from the sides, front, and back walls by marginate borders, the walls concave in each case, descending and converging mesially toward the midline, thus producing the appearance of a flaring, cuneate, petiolar node. Anterior peduncle short and constricted; posterior peduncle hardly more than an acetabulum for the condyle of the postpetiole. Petiole armed with a thin, translucent, median, ventral, blade-like keel, pointed at its middle. Postpetiole 2/5 wider than long, almost flat dorsally, marginate on all borders, but the ridge more rounded than the corresponding one on the petiole; anterior and lateral walls vertical and not tapering mesially, the post-petiolar node being thus no broader than the body of the segment. Anterior peduncle short, posterior peduncle obsolete, the postpetiole joined to the gaster by a wide face, though leaving a deep constriction between the two. Ventral surface of postpetiole produced into a short, triangular, transverse tooth, as a ventral extension of the anterior wall. Mesothoracic spiracles appear to be covered by backward extending flaps developed from the tops of the pro-mesothoracic pleural sutures. Epinotal spiracles large and easily visible. Petiolar spiracles located at the base of the anterior peduncle, postpetiolar spiracles laterally on the node of this segment. Spiracles present on the first three gastric segments.

Gaster elongate, about as long as the combined lengths of the thorax, petiole and postpetiole, or a little shorter; elliptical, rounded and convex in all directions, the anterior border blunt while the posterior end terminates in a somewhat pointed pygidium that is faintly concave on its dorsal aspect, but deflected ventrad. Abdomen furnished with a small sting, partly concealed.

Coxae stout and bulbous. Femora inflated, especially of the meso- and metathoracic legs (about 1⅓ times as long as broad), and laterally compressed, their ventral surfaces longitudinally grooved for the reception of the tibiae. Tibiae stout and partly compressed but less so than the femora. Foretibia armed with one small spine and a large, pectinate spur; the lower side of the fore basitarsus pectinate for its full length, its apex ending in three stout teeth. Mesotibia provided with a small, barely pectinate spur, and three, stout apical teeth, two of them approximated; meso-basitarsus armed with three terminal teeth. Metatibia and meta-basitarsus idential with those of the middle leg, though more strongly developed. All tarsi equipped with large claws.

Sculpture—Clypeus, frons, genae, and antennal scrobes covered with fine, longitudinal striae, essentially parallel, but which fade out posteriorly, leaving the vertex, occiput, and posterior part of the genae, smooth and very shining, interrupted only by piligerous punctures. Anterior third of the gula similarly striate, posterior portion smooth and shining. Mandibles longitudinally striate and punctate. Entire dorsum and pleurae of thorax, including the epinotum, longitudinally striate (somewhat oblique on the pleurae), but the striations slightly finer than that of the cephalic sculpture, and diverging to the epinotal corners. Top of the petiole showing well-separated, hair-bearing punctures, its sides striate. Postpetiole and gaster with similar but finer punctures, and a faintly coriaceous texture. All areas of the body, even where most heavily striated, bright and shining due to absence of inter-strial sculpture. Legs and antennae also smooth and shining.

Pilosity: Short, scattered, yellow hairs on all surfaces of the head and thorax, many of them arising from discernible punctures especially on the vertex, occiput, and petiole. Hairs are longer and more readily visible on the mandibles, front margin of the clypeus, gula, coxae, lateral surfaces of the legs, and particularly the lower surface of the petiole and gaster. Pubescence limited to the funiculi, postpetiole, and gaster, on which areas it merges with the erect hairs so that it is difficult to distinguish one from the other. Pilosity is most abundant on the gaster.

Color: Head, including the mandibles, dark red-brown to blackish brown, the frons, center lobe of clypeus, anterior genae, and center of the occiput, lighter in color; thorax, petiole, and postpetiole red-brown; gaster, legs, and antennae partly yellowish brown.

Holotype: Worker; collected 15 km. east of Tulear, Madagascar, on June 7, 1935 by Harold Kirby (?). Collection notes accompanying it state that the ants were found in a stump and associated with T —[termites?] 4403. Deposited in the author's collection.

Paratypes: Eight other specimens; 4 workers, 1 female (see below), and 3 winged female pupae (1 pigmented), collected from the same nest as the holotype.

Female: Length, 9.09 mm.; head length (excluding mandibles), 1.54 mm.; head width, 1.12 mm.; head index, 0.73; thorax length, 2.67 mm. (deälated).

The female caste is so similar in many ways to the worker in this genus that one is reminded of the parallel situation in ponerine genera. It is, therefore, necessary to point out only the salient features of the queen which separates it from the worker caste. There follows a brief diagnosis.

The female is winged, although the single adult specimen before me had become deälate, so fully expanded wings for description are lacking. Three pupae, however, have well-developed wing sacs. The female caste differs from the worker by its overall large size, the cephalic and thoracic striae or rugules which are a trifle coarser, the presence of large, flat, oval, compound eyes at the middle of the sides of the head, composed of a great number of ommatidia (longest diameter of the eye slightly less than the distance from its anterior edge to the insertion of the mandible), three distinct ocelli on the vertex, and the anterior clypeal teeth which are smaller and blunter. A pronounced, arcuate pro-mesonotal suture is present, the mesoscutum has distinct parapsidal furrows, the scutellum is separated by a well-marked suture, and the metanotum is distinguished by deeply impressed boundaries. The epinotum shows the posterior corners rounded (denticles reduced to slight carinae), and the basal face is rounded, passing gradually into the declivity without an angle, the whole segment narrower than in the worker. Petiole and postpetiole are smaller and both are more quadrate than the corresponding segments of the worker, where they are slightly transverse. Dorsal surfaces of both are furnished with fine, curved, transverse striae. The pleurae, and sides of the petiole and postpetiole have enough minute interstrial sculpture to cause a faint dullness to the otherwise shining surface. Pilosity over most of the body is sparser, especially on the gaster. Whether this is natural or due to a worn specimen, it is impossible to tell at present.

In Wheeler's key to the species of *Metapone* (1919), this ant runs to couplet 5 because of the bluntly bidentate clypeus. At the time this key was produced, there were two species known having the character mentioned, and *madagascarica* may be distinguished from them in the following manner.

From *tillyardi* it differs by larger size (6.91 vs. 5.5-6 mm.), a more quadrate petiole which is somewhat more excavated behind, by a rectangular and transverse (rather than oval) postpetiole, and in color which is dark reddish brown to black on thorax and head in contrast to castaneous brown of *tillyardi*. The head is proportionately longer also (1.38 vs. about 1.25 times as long as broad).

From *bakeri* it can be separated by a relatively longer head (1.38 vs. less than 1.25 times as long as broad), the presence of five rather than four mandibular teeth, a posterior clypeal suture, striate sculpture of the body (in contrast to smooth), petiole less deeply excised behind, shorter and stouter legs with more inflated femora, red-brown color instead of black, and a difference in size, which is indeed very notable (9.1 vs. 6.4 mm.). It should be stated that these comparisons are between the females of the two species owing to absence of the worker of *bakeri* which has yet to be discovered. The differences in

dentition and in body sculpture however, leave no doubt of the distinctness of these forms.

M. madagascarica is to be distinguished from *gracilis*, a species which Wheeler described in 1935, again on the basis of the females. It has larger size (9.1 vs. 7 mm.), the ocelli are all nearly the same size, the anterior one being only slightly larger than the laterals in contrast to that of *gracilis*, antennal scapes almost 3 times as long as broad (not 4 times), and the petiolar node has a concave anterior surface, the dorsal surface weakly convex and from above subquadrate, being only minutely wider than long (1 and 1/3 times longer than broad in *gracilis*).

From *jacobsoni*, it differs in larger size (9.1 vs. 6.4 mm.; only the female of *jacobsoni* has been described), head 1 1/4 times as long as broad instead of 1 1/2, clypeal suture visible, eyes almost in the exact middle of the head, epinotum more than one-half as wide at the rear as at the front, petiolar node 1 1/4 times wider than long (*jacobsoni* about 1 1/3 longer than wide), anterior wall of petiole concave, peduncle less than one-half as long as the node, postpetiole a little wider than long (not fully quadrate), and postpetiole with curved, transverse striae rather than shagreened. In many respects the two ants are very similar, to judge from Crawley's description, but the above differences appear to hold and should serve to distinguish them.

From *johni* it may be told by the shape of the antennal scapes which are broadest in the middle, whereas in *johni* they are pedunculate at the base, broadening apically (or as Karawajew puts it, "ham-shaped"—schinkenartige Form). This situation obtains also in *M. greeni*. Mandibles have 5 teeth instead of 4, the clypeus is bidentate rather than truncate and feebly concave, and the petiole is less convex dorsally and lacks a tooth posteriorly following the ventral lamella, but the node has sharper and more tooth-like posterior corners. The postpetiole displays a pointed transverse process instead of three, rounded transverse ridges.

Metapone emersoni sp. nov.

WORKER: Length, 8.33 mm.; head length (excluding mandibles), 1.58 mm.; head width, 1.25 mm.; head index 0.79; thorax length, 2.33 mm.

This species has many similarities to *M. madagascarica*, but as these traits are common to the genus *Metapone* and are given in detail in the foregoing description, they will not be repeated here. The most important features of this ant are as follows. Head about 1 1/4 times longer than broad, tapering slightly from the rear to the mandibular insertions, very convex both longitudinally and transversely, occipital border only weakly and broadly excised. Clypeus separated from the frons by a definite suture, subquadrate, though narrowing slightly at the anterior end, its median lobe projecting as a very short, anterior process, transversely truncated in front but not bidentate, with blunt but distinct anterolateral angles and notably concave lateral edges. The median lobe stands quite high above the lateral lobes, and is bordered by anterior extensions of the frontal

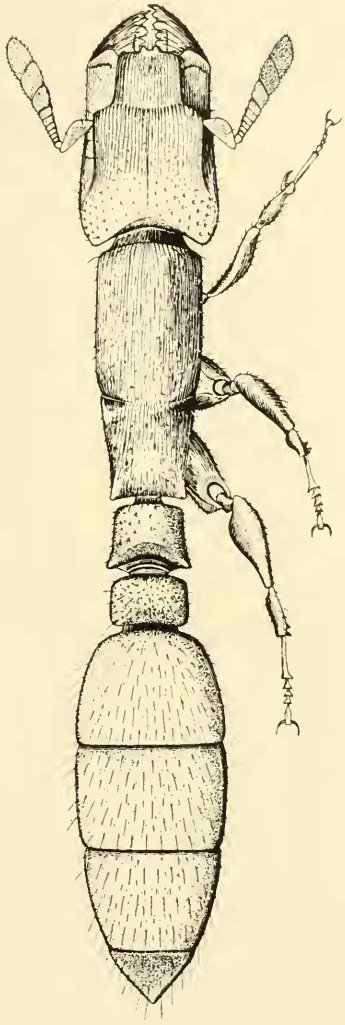
carinae flush with its dorsal surface. At the antennal insertions, the carinae diverge sharply and then extend backward as strong ridges overarching rather deep facial scrobes which receive the antennae. Scapes fairly slender at the base and widening to broad, flattened expansions distally. Funiculus with joints 2 to 7 wider than long and gradually expanding in size toward the apex; club composed of the last three segments which are spatulate and concavo-convex as in *madagascarica*. Eyes reduced to a group of 8 to 10 minute, flat ommatidia at the posteroventral border of the scrobe, and ⅔ the distance from mandibles to occiput. Mandibles narrow, masticatory border rounded, bearing 7 weak teeth (approaching denticles), and without any trace of a basal lobe. Ocelli and ocellar pits absent. Frontal groove distinct.

Thorax subrectangular, exactly twice as long as wide, humeri well-developed, and the epinotum tapering slightly to its posterior border. Pro-mesonotal suture absent; meso-epinotal suture distinct and somewhat impressed. Dorsum of thorax straight longitudinally, convex transversely, with vertical, concave pleurae; strongly margined at the sides, and across the anterior border of the pronotum. Epinotal teeth reduced to rather sharp ridges; basal face of the epinotum a little longer than the declivity, and joining the latter through a rounded angle; posterior border of the epinotum transverse and slightly excavated. Petiolar node from above strongly transverse, exactly twice as wide as long; anterior border faintly excised, lateral borders diverging posteriorly to well-marked, but rounded and backward-pointing lobes, and the posterior border deeply excised; the whole structure subtrapezoidal in shape, and strongly margined on the front and sides; antero-posteriorly convex. In profile, the petiole has a short anterior peduncle, a thin, translucent, longitudinal, ventral plate or keel with a rounded edge, the anterior and posterior faces of the node concave, the entire node rising and flaring laterally through concave sidewalls to the flat summit that expands into wing-like lateral lobes. From before, the node is decidedly cuneate in shape. Postpetiole also strongly transverse, but barely twice as wide as long (slightly narrower than the petiole); subrectangular in outline, the anterior border straight, posterior border weakly convex, and the sides diverging noticeably to the rear; summit of node nearly flat; sides tapering ventrally but not concave, converging obliquely to the petiole-postpetiolar joint, and continuing into a stout, ventrally directed spine, which curves slightly backward.

Gaster of the usual shape in these ants, rounded anteriorly and sloping to a rather narrow point apically. First segment exactly twice as long as either the petiole or the postpetiole. Sting well-developed, protruding.

Legs similar to those of *madagascarica*. Femora moderately inflated, tibiae stout, but metatarsi slender.

Sculpture.—Entire head, including scrobes, longitudinally striate, except for the occiput; striae very fine on the clypeus and mandibles, heavier elsewhere on the cephalic dorsum and genae, coarse over the entire gula. Thorax longitudinally striate on the dorsum and pleurae, the sculpture of about the same texture as on the head. Head and thorax with scattered, hair-bearing punctures, and brightly shining. Petiole and postpetiole plentifully supplied with piligerous punctures, dorsally; shining. Gaster likewise punctate and shining, faintly shagreened or coriaceous.



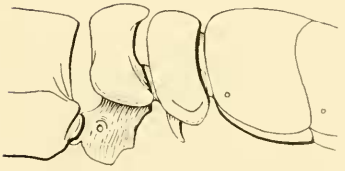


Fig. 1. Dorsal view of the worker of *Metapone madagascarica* sp. nov.
Fig. 2. Petiole and postpetiole of *Metapone emersoni* sp. nov. (worker)

Pilosity.—Very similar to that of the previously described species.

Color.—Reddish brown, the head and antennae darker, mandibles black; gaster lighter, yellow-brown toward the tip.

Holotype.—Worker; collected 12 miles from Perinet, Madagascar, on June 28, 1935, by Harold Kirby(?). As with the preceding species, they were recorded under a field number, T-4503, and presumably were associated with termites. Deposited in the author's collection.

Paratype.—One worker bearing the same collection data as the holotype.

In Wheeler's key, this species goes to couplet 5 because of the scarcely projecting median lobe of the clypeus, and thence to *tillyardi* because the petiole is broadly excised behind and the body is longitudinally striate. Though *emersoni* in morphology resembles *tillyardi* most closely, it can be distinguished from that species by lacking the small, blunt clypeal teeth, by the presence of 7 mandibular teeth instead of 5, a postpetiole which is virtualy as broad as the petiole (more transverse and less elliptical) and which has one stout, curved spine (instead of two transverse processes), and by its larger size (8.33 mm. vs. 5.5–6 mm.).

From *bakeri* it is easily separated by having 7 instead of 4 mandibular teeth, by the longitudinal striation of the head and thorax (*bakeri* is very smooth and shining except for dense sculpture in the scrobes), the very broad petiole (petiole longer than broad and narrower than the postpetiole in *bakeri*), and by its larger size (worker of *emersoni* 8.33 mm.; female of *bakeri* 6.4 mm.).

Metapone gracilis differs from *emersoni* by its 5-toothed mandibular dentition, but especially by its petiole which is about 1⅓ times as long as broad, somewhat longer than high, and the anterior face of the node which is straight and perpendicular.

From *jacobsoni*, the new species can be recognized by its shorter and stouter head (1¼ longer than broad rather than 1½), 7 instead of 5 mandibular teeth, and by its very broad petiolar node (twice as wide as long in contrast to 1⅓ times as long as wide).

To distinguish it from *johni*, it is necessary only to compare the form and proportions of the petiole and postpetiole, both of which are strongly transverse and twice as wide as long in contrast to the petiole of *johni* which is trapezoidal, and the postpetiole which is transversely oval and about 1.6 times as wide as long; it also lacks the prominent ventral spine.

Finally, the two new species can be readily differentiated by the form of the anterior clypeal margin, the shape of the scapes, the epinotum, and particularly the petiole and postpetiole which are strikingly unlike in these ants.

It will be noticed that *madagascarica* and *emersoni* belong to that division of the genus in which the anterior clypeal lobe is short, only slightly produced over the mandibular bases, and either somewhat truncate or else bidentate. The preceding comparisons have all

concerned other members of this group, while the remaining species of *Metapone* are in another division, represented by *M. greeni*, etc., and agree in having the clypeus notably extended, truncated in front, and furnished with sharp, tooth-like lateral corners.

A list of the known species of *Metapone* will serve to summarize the taxonomy of this group, and also to give some conception of its distribution so far as present information allows.

Metapone greeni Forel

Forel, Rev. Suisse Zool., 1911, 19, p. 449, Pl. 14, ☿, ♀, ♂ and larva; Emery, Ann. Soc. Ent. Belg., 1912, 56, p. 95, Fig. 1, larva; Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 179, ☿, ♀, ♂, Fig. 1, 2; Emery, Genera Insect., 1921, Fasc. 174, p. 20.

Type locality: Peradenyia, Ceylon (E. E. Green)

Metapone mjoebergi Forel

Forel, Ark. f. Zool., 1915, 9, p. 36, ☿, ♀; Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 181, ☿, ♀; *M. mjöbergi* Emery, Genera Insect., 1921, Fasc. 174, p. 20.

Type locality: Malanda, Queensland (E. Mjöberg)

Metapone sauteri Forel

Forel, Arch. f. Naturg., 1913, 79, p. 189, Fig. ♀; Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 182, ♀; Emery, Genera Insect., 1921, Fasc. 174, p. 20.

Type locality: Sokutsu, Banshoryo District, Formosa (Hans Sauter)

Metapone leae Wheeler

Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 183, ♀, Figs. 3, 4.

Type locality: Mt. Tambourine, Queensland (A. M. Lea)

Metapone bakeri Wheeler

Wheeler, Proc. New Eng. Zool. Club, 1916, 6, p. 10, ♀, Fig. 1; Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 186, ♀. Fig. 5; Emery, Gen. Insect., 1921, Fasc. 174, p. 20.

Type locality: Mt. Banahao, Luzon Island, Philippines (C. F. Baker)

Metapone tillyardi Wheeler

Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 187, ☿, Fig. 6.

Type locality: Dorrigo, New South Wales

Metapone hewitti Wheeler

Wheeler, Bull. Mus. Comp. Zool., 1919, 63, p. 62, ♂; Wheeler, Ann. Ent. Soc. Amer., 1919, 12, p. 189, ♂, Fig. 7.

Type locality: Kuching, Borneo (John Hewitt)

Metapone jacobsoni Crawley

Crawley, Ann. Mag. Nat. Hist., 1924, 13, p. 389, ♀.

Type locality: Fort de Kock, Sumatra (E. Jacobson)

Metapone johni Karawajew

Karawajew, Konowia, 1933, 12 (1-2), p. 115, ☿, ♀, ♂.
Type locality: Hantana, Ceylon, 3000-4000′ (O. John)

Metapone gracilis Wheeler

Wheeler, Psyche, 1935, 42, p. 38, ♀.
Type locality: Dapitan, Mindanao Island, Philippines (C. F. Baker)

Metapone krombeini M. R. Smith

M. R. Smith, Proc. Ent. Soc. Wash., 1947, 49, p. 76, ♀.
Type locality: K. B. Mission, Milne Bay, New Guinea (K. V. Krombein)

Metapone tricolor McAreavey

McAreavey, Proc. Linn. Soc. N. S. Wales, 1949, 74, p. 4, ♀.
Type locality: Nyngan, New South Wales (J. W. T. Armstrong)

Metapone truki M. R. Smith

M. R. Smith, Jour. N. Y. Ent. Soc., 1953, 61, p. 135, ☿.
Type locality: Truk Island; North Basin of Mount Chukumong, Moen (R. W. L. Potts)

Metapone madagascarica sp. nov.

Type locality: Tulear, Madagascar (H. Kirby)

Metapone emersoni sp. nov.

Type locality: Perinet, Madagascar (H. Kirby)

At the present time, 15 species of *Metapone* have been described, and until the publication of this report, they have all come from the Indo-Australian portion of the globe. Four are known in Australia, 2 in the Philippines, 2 in Ceylon, and 1 each on Borneo, Sumatra, Formosa, New Guinea, and Truk (in the Caroline Islands). The 2 new species herein described from Madagascar extend the known distribution of the group far to the west of its previously understood limits. It is tempting to suppose that the genus may yet be found on the continent of Africa or southeastern Asia, but the fact of its proximity to these places does not justify such a prediction. The present range is very wide, but it is characteristically disjunctive, sporadic, and decidedly insular, with the exception of the Australian species which are the only ones found in a continental area. Coupled with these facts is the extreme rarity of both species and individuals, and the primitiveness of the genus. It has certain specialized features which seem to be correlated with life possibly in termite nests, but the general morphology places *Metapone* among the primitive myrmicines so far as our knowledge now permits. It seems safe to conclude that these ants form a relict group which may have been at one time much more extensively distributed, including continental areas of

the Old World. I have been unable, however, to find any mention of the genus by Wheeler (1914) in his exhaustive treatment of the ants in the Baltic Amber, nor in Carpenter's study (1930) of the Florissant Ant Fauna. The absence of these ants from Eurasia and from North America during mid-Tertiary times, as far as the record indicates, is suggestive but not conclusive. It is still possible they may have inhabited the area in question, but owing to peculiar and secretive behavior (perhaps associated with termites and not given to strong nuptial flights), they avoided the amber when it was forming from sticky resin, and the fine, volcanic ash sediments that were accumulating in the ancient lake bed at Florissant.

LITERATURE

Crawley, W. C., and E. Jacobson. 1924. Ants from Sumatra. Ann. Mag. Nat. Hist. 13:380-409.

Karawajew, W. 1933. Ameisen aus dem Indo-Australischen Gebiet, VII Konowia 12:103-120.

McAreavey, J. J. 1949. Australian Formicidae. New genera and species. Proc. Linn. Soc. New South Wales 74:1-25.

Smith, M. R. 1947. A new species of *Metapone* Forel from New Guinea. Proc. Ent. Soc. Wash. 49:75-77.

———, 1953. A new *Metapone* from the Micronesian Islands. Jour. N. Y. Ent. Soc. 61:135-137.

Wheeler, W. M. 1916. Four new and interesting ants from the mountains of Borneo and Luzon. Proc. N. Eng. Zool. Club 6:9-18.

———, 1919. The ants of the genus *Metapone* Forel. Ann. Ent. Soc. Amer. 12:173-191.

———, 1935. New ants from the Philippines. Psyche 42:38-52.

ANNOUNCEMENT

Short scientific articles, not illustrated, two double-spaced typewritten pages in length, are welcome and will usually receive prompt publication. References to literature should be included in the text, and the author's name should appear at the end of the article.